



"Committed to the protection and promotion of public health."

Gallatin City-County Health Department

The Extreme Cold Personal Health and Safety Guide

Adapted from the U.S. Department of Health and Human Services and Centers for Disease Control and Prevention *Extreme Cold Prevention Guide*



What is Extreme Cold?

What people consider as extreme cold temperatures varies from region to region. Generally, however, extreme cold refers to a severe drop to 'below normal' temperatures that may be accompanied by windy conditions. It is these conditions that may pose a risk for severe health consequences to those individuals exposed.

What are the potential risks?

Most individuals inadequately prepared for extreme cold and with prolonged exposure to cold temperatures are at risk for **hypothermia** and **frostbite**.

Hypothermia

Hypothermia results when your body uses up its stored energy and your body's temperature drops to dangerous levels. While it is most likely to occur at very cold temperatures, it can even occur at cool temperatures (above 40 degrees) if a person is chilled from rain, sweat, or submersion in cold water.

Most victims of hypothermia include: elderly people with inadequate food, clothing, or heating; babies sleeping in cold bedrooms; people exposed for long periods in cold outdoor conditions; and people who drink alcohol or use illicit drugs.

Warning signs of hypothermia for adults include shivering, exhaustion, confusion, fumbling hands, memory loss, slurred speech and drowsiness.

Warning signs for infants include bright red, cold skin and very low energy.

If you notice these signs, take the person's temperature. *If it is below 95 degrees, the situation is an emergency—get medical attention immediately!*
If the victim is not breathing, perform CPR.

If medical care is not available, begin warming the person as follows:

- Get the victim into a warm room or shelter.
- If the victim has on any wet clothing, remove it.
- Warm the center of the body first using an electric blanket or dry layers of blankets, clothing, towels or sheets.

- If the person is conscious, give them warm *non-alcoholic* beverages to drink.
- Keep the victim warm and dry until medical help has arrived.

Frostbite

Frostbite causes a loss of feeling and color in affected areas of the body such as nose, ears, cheeks, chin, fingers, or toes. The risk of frostbite is increased in people with reduced blood circulation and those inadequately dressed for cold temperatures. Frostbite can permanently damage the body and may result in amputation.

Warning signs of frostbite include a white or grayish-yellow skin area, firm or waxy skin, and numbness (A victim is often unaware of frostbite because the frozen tissues are numb).

If you detect symptoms of frostbite, seek medical care. If medical care is not immediately available, follow these steps to care for the victim:

- Get them into a warm room as soon as possible.
- Unless absolutely necessary, do not walk on frostbitten feet or toes.
- Immerse the affected area in warm—not hot—water, or by using body heat.
- Do not rub or massage the frostbitten area. This can cause more damage.
- Do not use a heating pad, heat lamp or the heat of a stove, fireplace or radiator for warming. The affected areas can be easily burned.

What can I do to prepare myself for extreme cold conditions?

1. **Plan ahead:** While weather forecasts can greatly aid us in warning of expected cold conditions, extreme cold conditions cannot always be predicted. Make sure to have a **winter survival kit** for your home and your vehicle. Things to include in your survival kit are items such as:
 - Food that needs no cooking or refrigeration
 - Bottled water
 - Medicine
 - Alternative heating sources
 - Blankets
 - Matches
 - First aid supplies
 - Flashlight
 - Mobile phone

Think of other things that will be important to you! If you are a pet owner, make sure to think of special things you can do to protect them from severe cold.

2. **Prepare your home:** If you have a fireplace or wood stove, make sure to inspect and clean your chimney or flue each year. Install smoke detectors and carbon monoxide detectors in areas being heated; test them monthly. To the

extent possible, weatherproof your home by adding weather stripping, insulation, insulated doors and storm windows.

3. **Prepare your car:** Have maintenance service on your vehicle. Every fall, have the radiator system serviced. Check the antifreeze level. Replace any worn tires; consider using tires well equipped for winter conditions.
4. **Protect yourself:** When you know you will be exposed to cold conditions, there are several specific actions you can take to protect yourself from its dangers:
 - Dress warmly and stay dry. Consider wearing a warm hat that covers your ears; a scarf or mask, mittens or gloves, a warm coat, and warm boots. Also, dress in layers of loose-fitting clothing.
 - Eat well-balanced meals and drink warm, sweet beverages or broth to help maintain your body temperature.
 - Avoid exertion—your body is already working hard to stay warm!
 - Monitor your body temperature; if you feel cold, get into a space that provides warmth.
 - Avoid injury. Be careful while walking or driving on ice.
 - Understand weather conditions such as wind chill factor

Take extra steps to protect individuals most at risk:

- **Infants** lose body heat more easily than adults. Make sure that you have plenty of warm clothing for them and maintain a warm indoor environment.
- **Older adults** often make less body heat because of slower metabolism and less physical activity. Make sure that these individuals have adequate heat, food and clothing.

For more information about extreme cold, call the Gallatin City-County Health Department at 406-582-3100.